

INTERNATIONAL SEARCH REPORT

International Application No
101/EP2004/005079

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 E21B47/10 G01V1/50

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 E21B G01M G01V

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 114 721 A (GLENN JR EDWIN E) 19 September 1978 (1978-09-19) column 2, line 55 - column 4, line 32; figure 1	1
A	US 4 928 269 A (KIMBALL CHRISTOPHER V ET AL) 22 May 1990 (1990-05-22) figure 8	1
A	US 4 319 346 A (MACDONALD CLYDE O) 9 March 1982 (1982-03-09) column 2, line 66 - column 3, line 31; figure 2	1

Further documents are listed in the continuation of box C.

Patent family members are listed in annex:

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the International search

3 September 2004

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21/09/2004

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International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 395 499 A (SCHLUMBERGER HOLDINGS ; SCHLUMBERGER PROSPECTION (FR); SCHLUMBERGER) 31 October 1990 (1990-10-31) column 7, line 30 - column 8, line 30; figures 1,3,6	1
A	H.B. KOERNER, J.C. CARROLL: "Use of the noise log as a downhole diagnostic tool" SOCIETY OF PETROLEUM ENGINEERS, vol. SPE, no. 7774, 25 March 1979 (1979-03-25), - 29 March 1979 (1979-03-29) pages 191-198, XP002257831 Bahrain cited in the application See whole documentfigures 1,2	1
A	US 4 646 273 A (CARLSON NORMAN R ET AL) 24 February 1987 (1987-02-24) column 1, line 54 - column 2, line 2; figure 1	1
A	US 4 046 220 A (GLENN JR EDWIN E) 6 September 1977 (1977-09-06) column 2, line 20 - line 56; figures 1,2	1
A	US 5 010 527 A (MAHRER KENNETH D) 23 April 1991 (1991-04-23) column 9, line 5 - line 25; figures 5,11,21 column 10, line 21 - line 46	1

INTERNATIONAL SEARCH REPORT

International Application No
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Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 4114721	A 19-09-1978	NONE		
US 4928269	A 22-05-1990	NONE		
US 4319346	A 09-03-1982	NONE		
EP 0395499	A 31-10-1990	FR 2646513 A1 AT 92193 T AU 618472 B2 AU 5386990 A CA 2014875 A1 DE 69002375 D1 DE 69002375 T2 DK 395499 T3 EP 0395499 A2 ID 824 B NO 901825 A ,B, US 5216638 A		02-11-1990 15-08-1993 19-12-1991 01-11-1990 26-10-1990 02-09-1993 24-02-1994 28-08-1995 31-10-1990 24-07-1996 29-10-1990 01-06-1993
US 4646273	A 24-02-1987	NONE		
US 4046220	A 06-09-1977	CA 1057389 A1		26-06-1979
US 5010527	A 23-04-1991	AU 603521 B2 AU 4575189 A BR 8906007 A CA 2002468 A1 CN 1043185 A ,B FR 2643415 A1 GB 2226408 A ,B JP 2256791 A JP 2694033 B2 MX 170483 B		15-11-1990 14-06-1990 19-06-1990 29-05-1990 20-06-1990 24-08-1990 27-06-1990 17-10-1990 24-12-1997 25-08-1993